

HBA test results

6 Feb 2008

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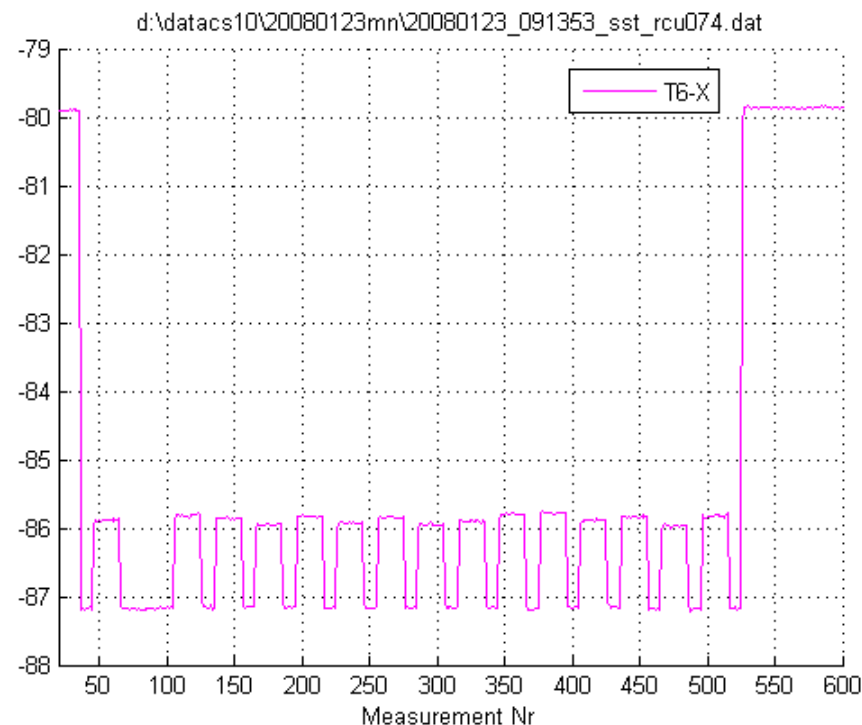
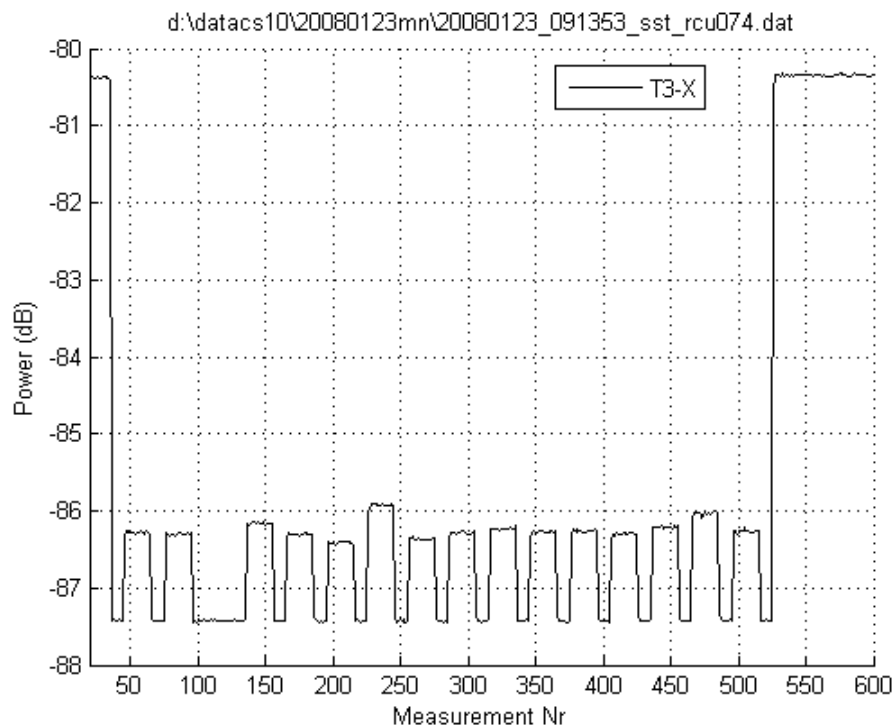


Summary

- ◆ Two defective FE units in HBA Tile 3 and 6
- ◆ HBA beam calculation validation
- ◆ P2000 scan with HBA Tiles

Defective FE (HBA Tile 6 and 3) CS010c

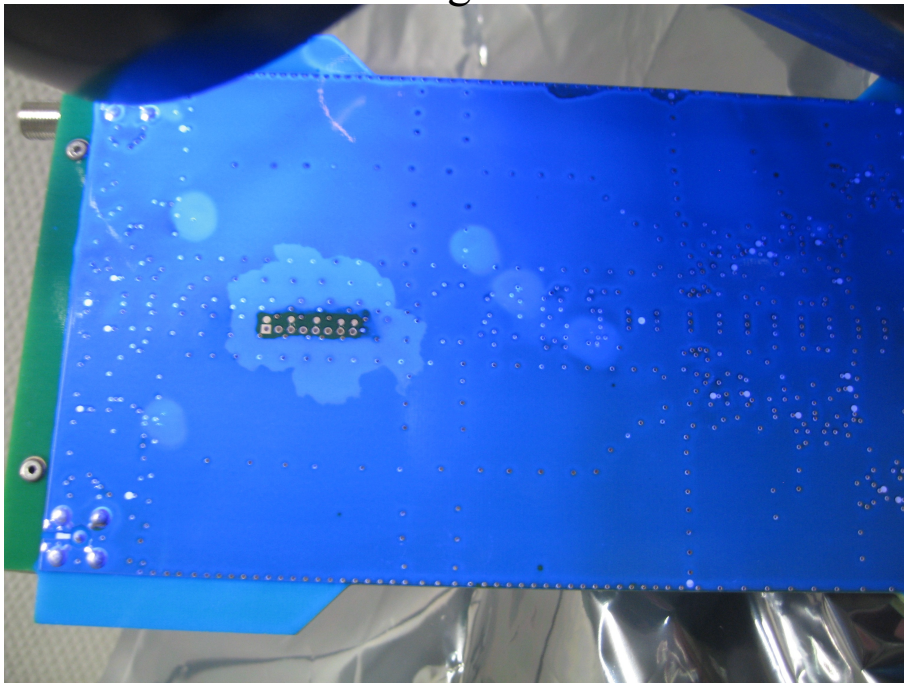
- ◆ Detected 23 Jan 2008
- ⊕ FE 3 in T3 and FE 2 in T6
- ⊕ FE2 in T6 is replaced, FE 3 is still missing



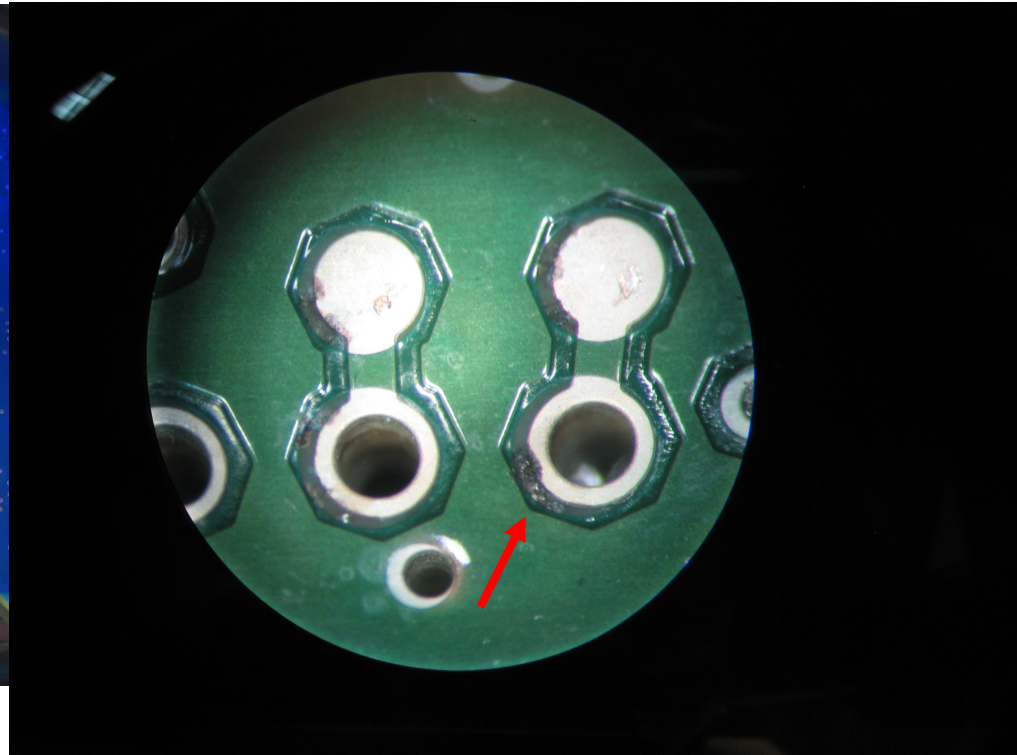
Defective FE (HBA Tile 6 and 3) CS010c

- ◆ Problem with modem communication i.s.o switches
- ◆ No coating around the (optional) programming connector
- ◆ Analysis and repair done by Henri Meulman
- ◆ New prototype design (CMOS switch) is okay

Black light scan

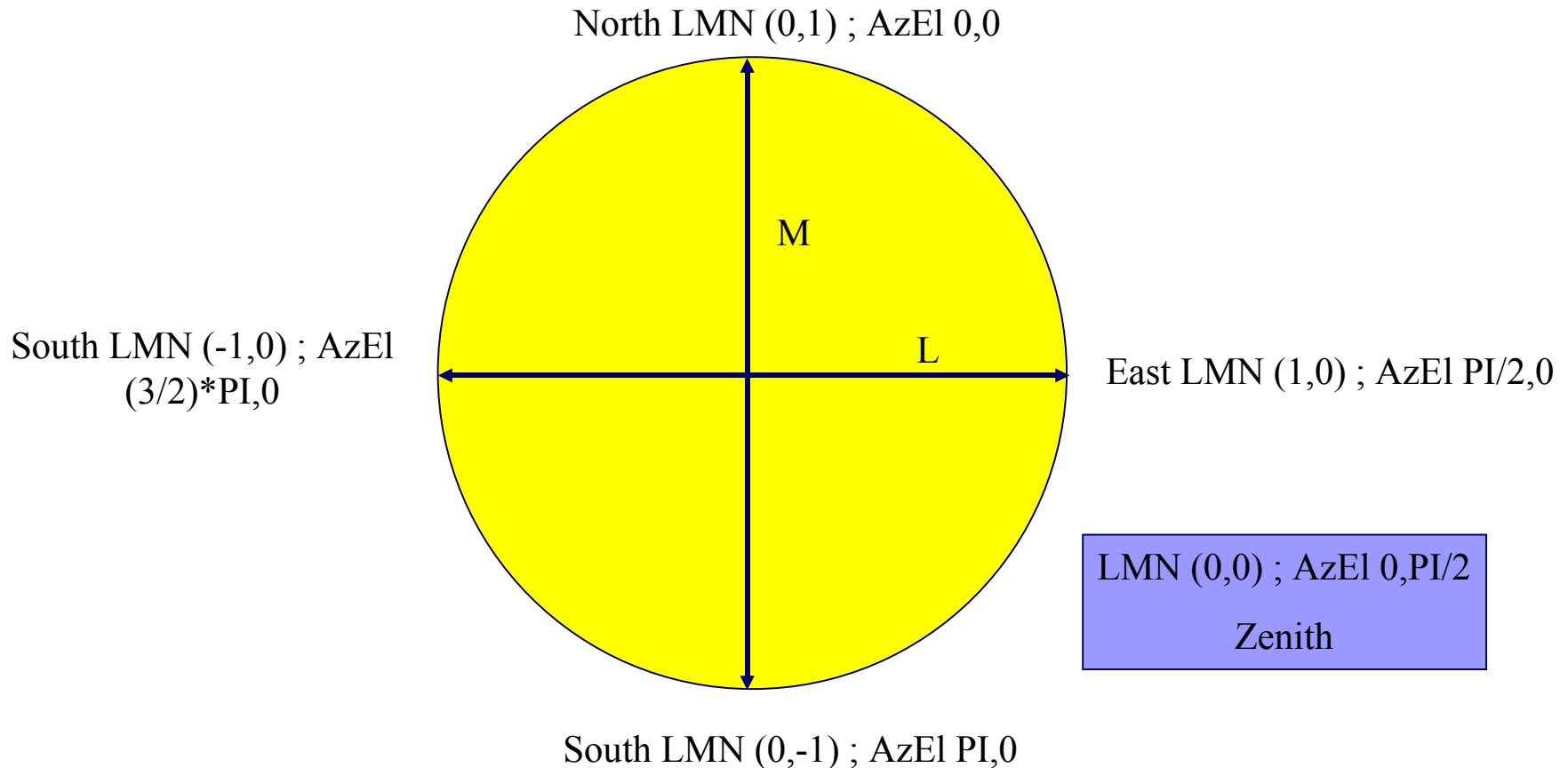


Dendrites



HBA beam calculation validation

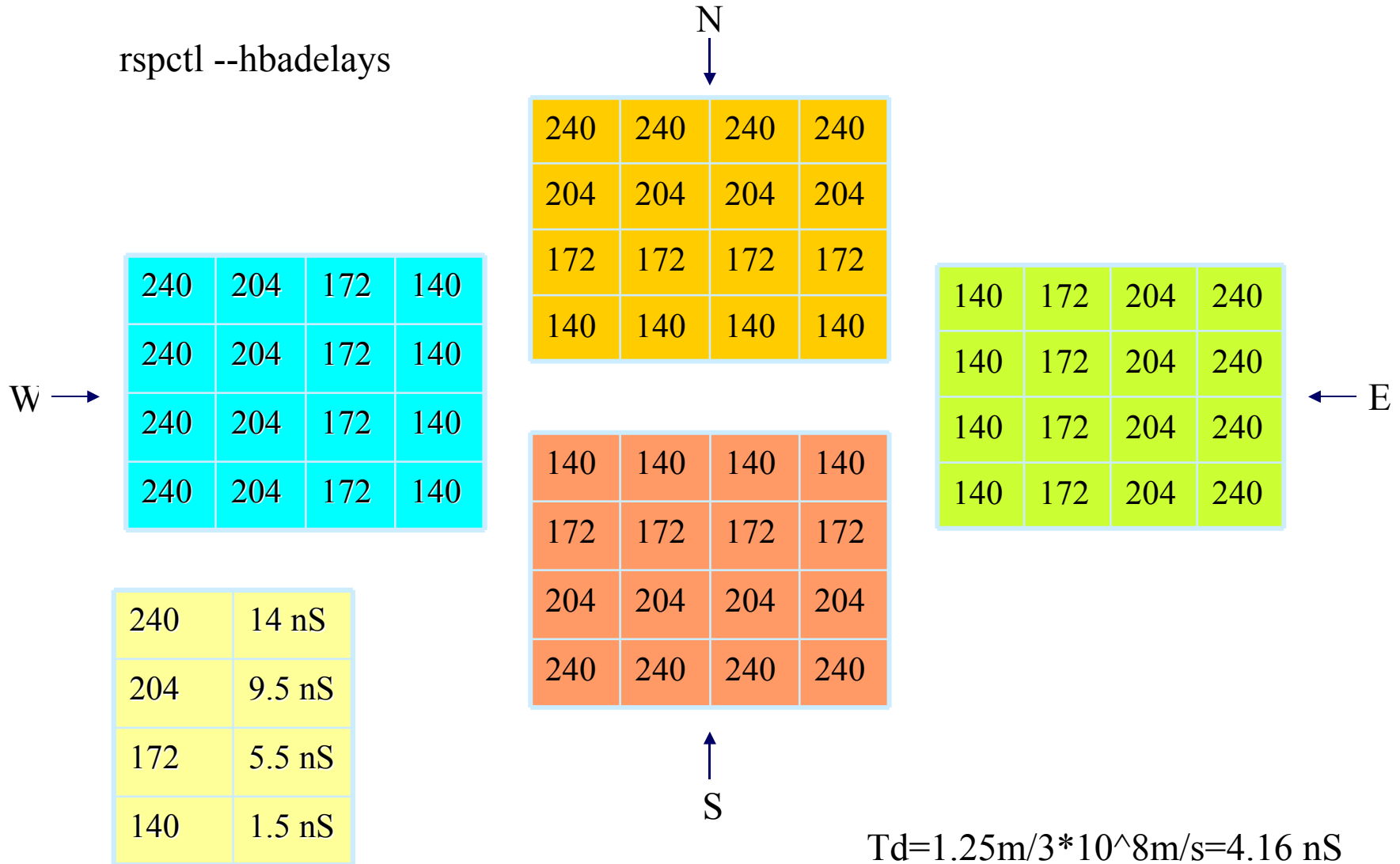
◆ LOFAR_LMN or AZEL (Beamctl)



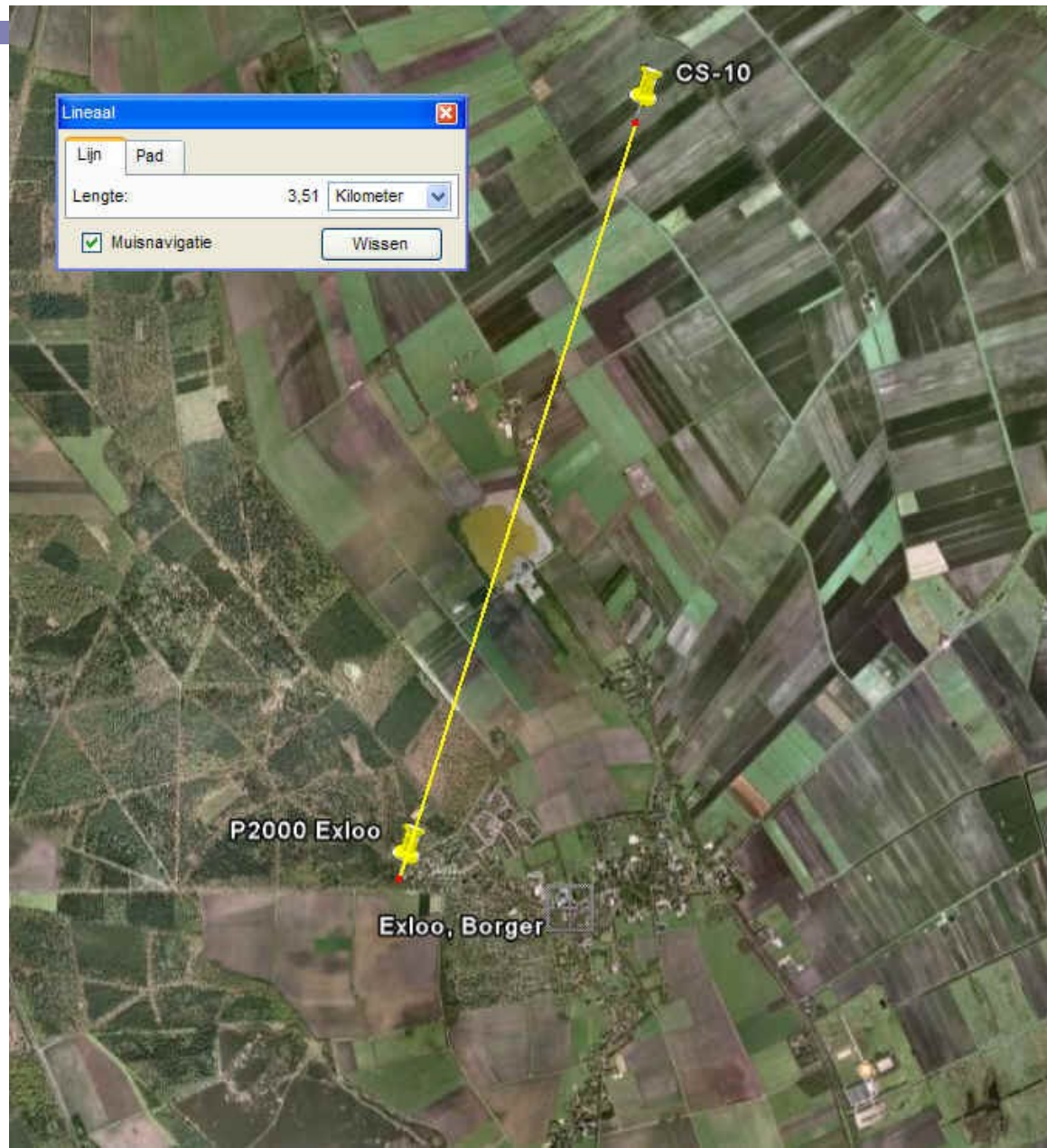
Remark: Angle should be in Radians !!

HBA beam calculation validation

rspctl --hbadelays



P2000 scan with HBA tiles

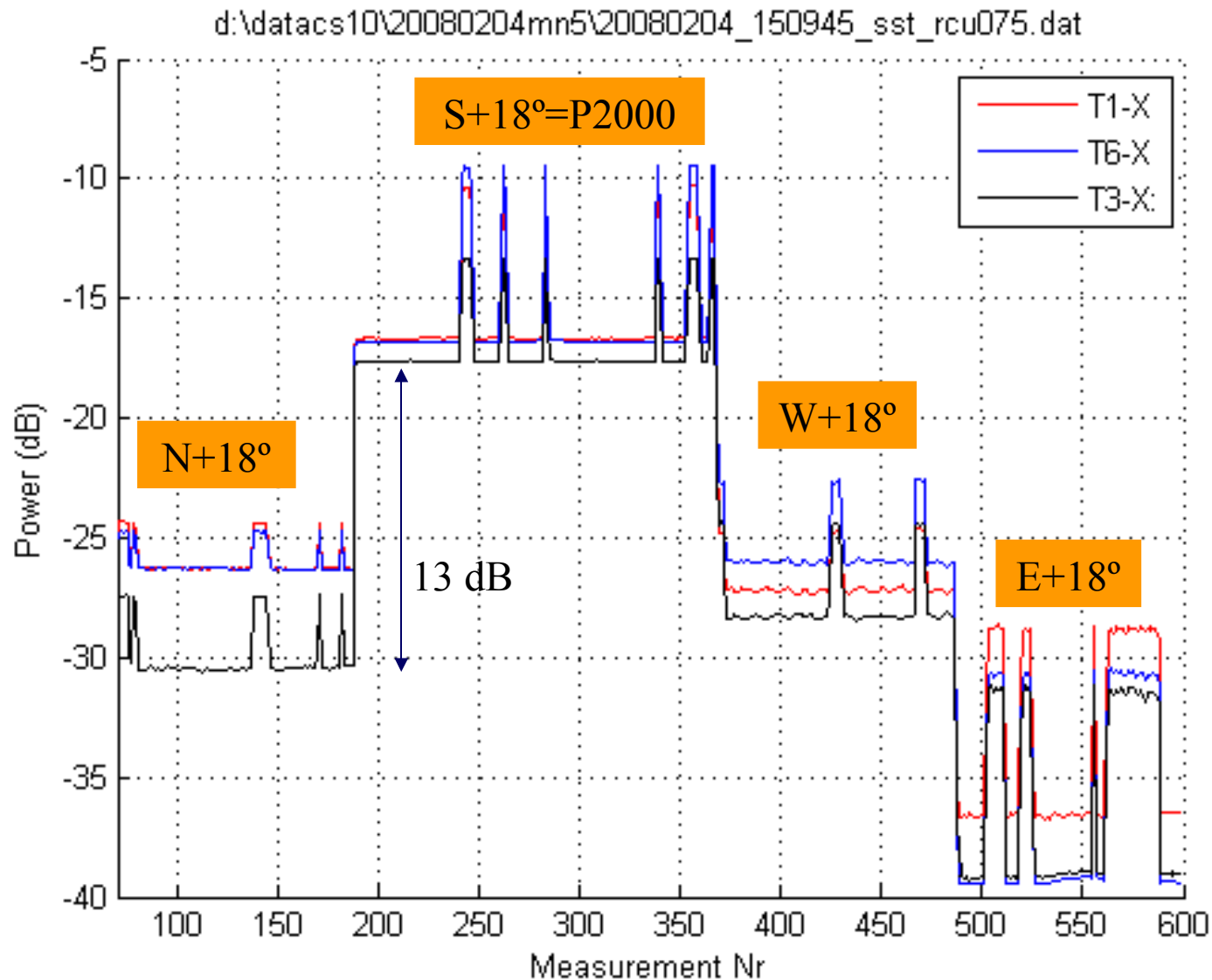


Position

LMN (-0.33,1)

AzEl (3.455,0)

P2000 scan with HBA tiles (169.75 MHz)



Other items

- ◆ 25 single HBA placed on CS-10
- ◆ Tile 4 is placed on CS-10 (6 Tiles complete)
- ◆ Tile 4 has a roof for rain experiments
- ◆ 4 HBA elements on CS-1 are working fine